

JCWSCS 29 JUN 2004

Jun-28-04 03:29pm From:HBS&R

1978-341-0136

FILE COPY
T-024 P-01708 F-347

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 Virginia Road, P.O. Box 9133
Concord, MA 01742-9133

260

Telephone: (978) 341-0036

Facsimile: (978) 341-0136

FACSIMILE FILING OF PTO DOCUMENT

Examiner: Emmanuel Bayard **Group:** 2631

Date: June 28, 2004

Client Code: 3684

Facsimile No.: Corrected Filing Receipt Requests - 703-746-9195

From: James M. Smith, Esq.

Subject: Paper: Request for Corrected Filing Receipt for Utility Application

Docket No.: 2789.2004-001

Applicants: William J. Dally, *et al.*

Serial No.: 09/557,164

Filing Date: April 25, 2000

RECEIVED
OCT 08 2004
Technology Center 2600

Number of pages including this cover sheet: 9

Please confirm receipt of facsimile: Yes X No ____

Comments:

@PFDesktop: ODMA/MHODMA/HBSR05, Manage, 482347, 1

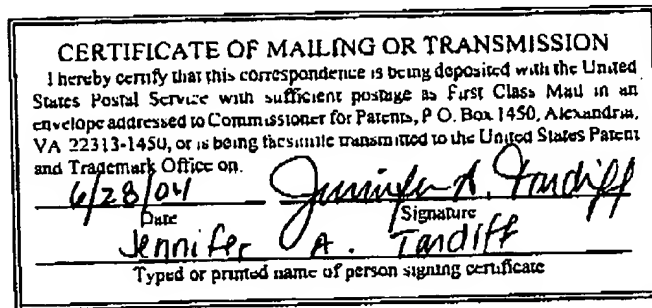
Privileged and Confidential - All information transmitted hereby is intended only for the use of the addressee(s) named above. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient(s), please note that any distribution or copying of this communication is strictly prohibited. Anyone who received this communication in error is asked to notify us immediately by telephone and to destroy the original message or return it to us at the above address via first class mail.

@PFDesktop\..ODMA\MHODMA\HBSR05\iManage;482346;1
JMS/jar
June 23, 2004

PATENT APPLICATION
Docket No. 2789.2004-001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William J. Dally and John W. Poulton
Application No.: 09/557,164 Group: 2631
Filed: April 25, 2000 Examiner: Emmanuel Bayard
Confirmation No.: 9280
For: TRANSITION-TIME CONTROL IN A HIGH-SPEED DATA TRANSMITTER



RECEIVED

OCT 08 2004

Technology Center 2600

REQUEST FOR CORRECTED FILING RECEIPT
FOR UTILITY APPLICATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

We hereby request that the following items of information be added to the Filing Receipt for the subject application received in this office on June 27, 2000.

The errors and corrections appear below.

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/181,276 02/09/2000

Enclosed are copies of the Filing Receipt with changes noted in red, the Declaration for Patent Application and the first page of specification.

09/557,164

-2-

Pursuant to instructions in the February 29, 2000 O.G., we hereby request that the errors which are identified above be corrected in the captioned application to which this request for correction is directed. It is understood that the Patent Office will issue an automatically-generated, corrected Filing Receipt in this and, if applicable, any other affected applications.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

James M. Smith

Registration No.: 28,043

Telephone: (978) 341-0036

Facsimile: (978) 341-0136

Concord, MA 01742-9133

Date: 

COPY**FILING RECEIPT****UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: ASSISTANT SECRETARY AND
COMMISSIONER OF PATENT AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE RECD	ATTY DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/557,164	04/25/2000	2838	1752	2789.2004-001	8	66	6

21005
HAMILTON BROOK SMITH AND REYNOLDS, P C.
TWO MILITIA DR
LEXINGTON, MA 02421-4799

Date Mailed: 06/27/2000

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

William J. Dally, Stanford, CA,
John W. Poulton, Chapel Hill, NC;

Continuing Data as Claimed by Applicant

This appln claims benefit of 60/181,276 02/09/2000
Foreign Applications

If Required, Foreign Filing License Granted 06/27/2000

Title

Transition-time control in a high-speed data transmitter

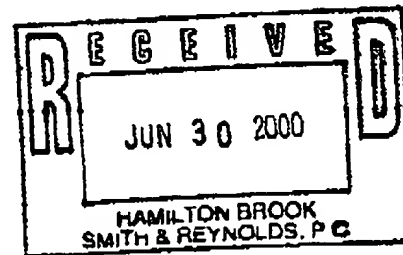
Preliminary Class

323

Data entry by : BROWN, ROSCOE

Team : OIPE

Date: 06/27/2000



**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 36 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

PLEASE NOTE the following information about the Filing Receipt:

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents
Office of Initial Patent Examination
Customer Service Center
Washington, DC 20231

COPY

-1-

Date: <u>4-25-00</u> Express Mail Label No. <u>EL 29 0724650 US</u>

Inventors: William J. Dally and John W. Poulton
Attorney's Docket No.: 2789.2004001

TRANSITION-TIME CONTROL IN A HIGH-SPEED DATA TRANSMITTER

RELATED APPLICATION(S)

This application claims the benefit of U.S. Provisional Application No. 60/181,276, filed February 9, 2000, the entire teachings of which are incorporated
5 herein by reference.

BACKGROUND OF THE INVENTION

The transition time, rise time or fall time, of an output driver is the time required for the output signal to slew between two voltages, typically 20% and 80% of full swing. In certain prior-art systems, for example, transition time must be maintained
10 larger than a specified minimum value to keep the derivative of the supply current, and hence the inductive switching noise (sometimes called simultaneous switching output (SSO) noise), within limits. At the same time, transition time must be kept smaller than a maximum value to avoid excessive delay of the signal.

Across variations in process parameters, supply voltage, and temperature,
15 transition time can vary by a considerable amount, often by a factor of two or more. In some applications, the spread between maximum and minimum values for transition time is wide enough so that this variation is acceptable. In other applications, however, the window of legal transition times is small and such a large variation in transition time is unacceptable.

20 Transition time control has been employed in prior art systems with relatively slow signaling rates, where the bit time is greater than 10 gate delays. At such data rates, transition time can be controlled by using a tapped delay line to sequence the

DOC. SET NO. 2789,2004001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

COPYDeclaration for Patent Application

As a named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name;

I believe I am the original, first and sole inventor (if only one name is listed) or an original, first and joint inventor (if plural names are listed in the signatory page(s) commencing at page 3 hereof) of the subject matter which is claimed and for which a patent is sought on the invention entitled

TRANSITION-TIME CONTROL IN A HIGH-SPEED DATA TRANSMITTER

the specification of which (check one)

☒ is attached hereto.☐ was filed on _____ as United States Application

Number or PCT International Application No. _____

and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is known by me to be material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

<u>Prior Foreign Application(s)</u>			Priority Not Claimed	Certified Copy Filed?	
				YES	NO
_____ (Number)	_____ (Country)	_____ (Day/Month/Year filed)	[]	[]	[]
_____ (Number)	_____ (Country)	_____ (Day/Month/Year filed)	[]	[]	[]
_____ (Number)	_____ (Country)	_____ (Day/Month/Year filed)	[]	[]	[]

I hereby claim the benefit under 35 U.S.C. §119(c) of any United States provisional application(s) listed below.

60/181,276
(Application Number)

February 9, 2000
(Filing Date)

(Application Number)

(Filing Date)

-2-

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information known by me to be material to patentability as defined in 37 C.F.R. 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Serial No.)	(Filing date)	(Status: patented, pending, abandoned)
(Application Serial No.)	(Filing date)	(Status: patented, pending, abandoned)
(Application Serial No.)	(Filing date)	(Status: patented, pending, abandoned)
(Application Serial No.)	(Filing date)	(Status: patented, pending, abandoned)

As a named inventor, I hereby appoint the attorneys and/or agents associated with
Hamilton, Brook, Smith & Reynolds, P.C., Two Milnia Drive, Lexington, Massachusetts 02421-4799
Customer No. 21005,

and _____

to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Please send correspondence to:

☒ Customer No. **21005**
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
Two Milnia Drive
Lexington, MA 02421-4799

or

☐ Address as follows:

Direct telephone calls to: James M. Smith, Esq. Telephone No.: 781-861-6240
 Direct facsimiles to: James M. Smith, Esq. Facsimile No. 781-861-9540

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole

or first inventor William J. Dally

Inventor's Signature

[Signature]

Date 4/18/2000

Residence

1068 Vernier Place

Stanford, CA 94305

Citizenship

U.S.A

Post Office Address

As above

-3-

Full name of second joint

inventor, if any John W. PoultonInventor's Signature [Signature]Date 4/19/2002Residence 8720 Union Grove Church RoadChapel Hill, NC 27516Citizenship U.S.A.Post Office Address As above